

MIA (m): 293T Lysate: sc-127154

BACKGROUND

Tumorigenesis is a process that is mediated by a network of membrane, cytosolic and nuclear associated factors, which regulate proliferation and cell-matrix interaction through signaling cascades. The phenotype of malignant melanomas *in vivo* depends on the global expression of stimulatory or inhibitory factors generated in both the tumors cells and their environment. One example, melanoma inhibitory activity (cartilage-derived retinoic acid-sensitive protein (CD-RAP), MIA) is a Src homology 3 (SH3)-like domain containing protein that is secreted from chondrocytes and malignant melanoma cells. MIA is translated as a 131-amino acid pro-form and processed into a mature 107-amino acid protein after cleavage of a secretion signal. MIA is expressed during chondrogenesis and in mature chondrocytes, suggesting that MIA is necessary for normal cartilage cell phenotype. MIA mRNA is present in carcinomas of the colon, ovary, kidney and head/neck, and may represent a marker to monitor melanomic activity.

REFERENCES

1. Blesch, A., Bosserhoff, A.K., Apfel, R., Behl, C., Hessdoerfer, B., Schmitt, A., Jachimczak, P., Lottspeich, F., Buettner, R. and Bogdahn, U. 1994. Cloning of a novel malignant melanoma-derived growth-regulatory protein, MIA. *Cancer Res.* 54: 5695-5701.
2. Bosserhoff, A.K., Kondo, S., Moser, M., Dietz, U.H., Copeland, N.G., Gilbert, D.J., Jenkins, N.A., Buettner, R. and Sandell, L.J. 1997. Mouse CD-RAP/MIA gene: structure, chromosomal localization, and expression in cartilage and chondrosarcoma. *Dev. Dyn.* 208: 516-525.
3. Perez, R.P., Zhang, P., Bosserhoff, A.K., Buettner, R. and Abu-Hadid, M. 2000. Expression of melanoma inhibitory activity in melanoma and nonmelanoma tissue specimens. *Hum. Pathol.* 31: 1381-1388.
4. Stoll, R., Renner, C., Zwickstetter, M., Bruggert, M., Ambrosius, D., Palme, S., Engh, R. A., Golob, M., Breibach, I., Buettner, R., Voelter, W., Holak, T.A. and Bosserhoff, A.K. 2001. The extracellular human melanoma inhibitory activity (MIA) protein adopts an SH3 domain-like fold. *EMBO J.* 20: 340-349.
5. Loughheed, J.C., Holton, J.M., Alber, T., Bazan, J.F. and Handel, T.M. 2001. Structure of melanoma inhibitory activity protein, a member of a recently identified family of secreted proteins. *Proc. Natl. Acad. Sci. USA* 98: 5515-5520.

CHROMOSOMAL LOCATION

Genetic locus: Mia (mouse) mapping to 7 A3.

PRODUCT

MIA (m): 293T Lysate represents a lysate of mouse MIA transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

MIA (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive MIA antibodies. Recommended use: 10-20 µl per lane.

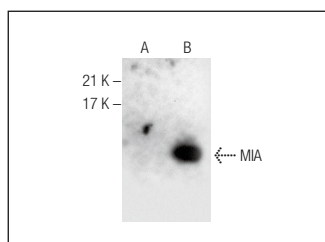
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

MIA (C-10): sc-377375 is recommended as a positive control antibody for Western Blot analysis of enhanced human MIA expression in MIA transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



MIA (C-10): sc-377375. Western blot analysis of MIA expression in non-transfected: sc-117752 (A) and mouse MIA transfected: sc-127154 (B) 293T whole cell lysates.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.